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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/426,827	10/25/1999	KIMBERLY ANN MUDAR	D-43266-01	2390

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CRYOVAC, INC.
SEALED AIR CORP
P.O. BOX 464
DUNCAN, SC 29334

EXAMINER

HON, SOW FUN

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 06/05/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/426,827

Applicant(s)

MUDAR ET AL.

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/08/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Rejections Withdrawn

2. The 35 U.S.C. 103(a) rejections in Paper # 6 (05/14/01) of claims 1, 3-25 have been withdrawn due to the new rejections below.

New Rejections

Claim Rejections - 35 USC § 112

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 3-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1, 4, 8, 9, 17, it is unclear what the terms "homogeneous" and "heterogeneous" mean in terms of the actual structure of the ethylene alpha-olefin copolymers, especially in the structures of VLDPE and LLDPE. Applicant is respectfully requested to clarify for the record.
5. Claims 4-5, 11, 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant is respectfully requested to clarify for the record

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what the difference is between low density polyethylene (LLDPE) and very low density polyethylene (VLDPE). The linear structure and lack of long chain branching in both LLDPE and VLDPE arise from their similar polymerization mechanisms. The difference appears to be in the amounts of comonomer present in VLDPE. Applicant is respectfully requested to clarify for the record.

6. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the Standard Rib Drop Test is. Applicant is respectfully requested to clarify for the record.

7. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by "substantially free" since the resin is either present or absent. Applicant is respectfully requested to clarify for the record.

8. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the difference is between an outer abuse layer and a sealant layer if the resin used can function as both depending on where it is placed in the multilayer film.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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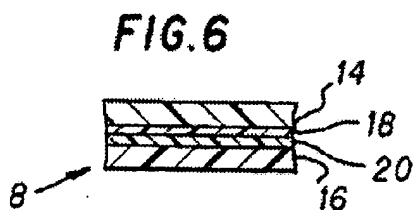
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1, 3-11, 14-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferguson ('403).

Ferguson teaches a biaxially heat shrinkable bag, and a biaxially heat shrinkable patch which shrinks with the bag, and which is made from a multilayer film which comprises a layer of linear low density polyethylene (LLDPE) and a layer of ethylene vinyl acetate copolymer (EVA) ('403, abstract). Below is a symmetrical embodiment of the patch taught by Ferguson:



The outer layers 14 and 16 comprise 87 % by weight of LLDPE. The inner layers 18 and 20 comprise EVA having 28 % vinyl acetate ('403, column 3, lines 10-25), which is in the range for the EVA to self-adhere (column 4, lines 65-68 and column 5, lines 1-5). Layers 14 and 16

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are also taught to comprise 1.7 % pigment ('403, column 3, lines 45-48). The patch is adhered with an adhesive to the bag (column 5, lines 1-10).

Ferguson teaches that the copolymers referred to as LLDPE generally have a density of 0.900 to 0.935 g/cc ('403, column 3, lines 60-65), which encompasses the ethylene alpha-olefin copolymers in components A and B as defined by the disclosure of the present application (page 12, lines 15-20), and which appears to include the VLDPE referred to in the present application.

Claim Rejections - 35 USC § 103

11. Claims 1, 3-8, 10-11, 13-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson ('403) in view of Ferguson et al. ('856).

Ferguson ('403) has been discussed above, and although Ferguson ('403) teaches that the invention is directed toward protection of the bag against puncture ('403, abstract), the reference fails to specifically teach that the multilayered film comprises an outside abuse layer, inner O₂ barrier layer and inside sealant layer.

Ferguson et al. ('856) has packaging films made into bags which are heat shrinkable and have improved shrink, tear, barrier and puncture resistance properties ('856, column 1, lines 1-11). The multilayer barrier film comprises a layer comprising a blend of VLDPE and LLDPE (outside abuse layer), a gas barrier layer (inner O₂ barrier layer), and a layer of VLDPE (inside sealant layer) ('856, abstract, column 5, lines 25-30, column 9, lines 55-68 and column 10, lines 1-20). Ferguson et al. teaches impact strengths of values of 13 to 28 cm.kg (1.3 to 2.8 Joules) ('856, column 8, lines 25-30), demonstrating the puncture resistance of the films. Ferguson et al. teaches that the unexpected results are that the VLDPE not only provides improved O₂ barrier

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properties, but also is shrinkable well below its melting point and thus below the boiling point of water, which is very useful in packaging applications ('856, column 6, lines 45-60, column 5, lines 1-5).

Because Ferguson et al. ('856) teaches that the unexpected results are that VLDPE not only provides improved O₂ barrier properties, but also is shrinkable well below its melting point and thus below the boiling point of water, very useful in packaging applications, and both Ferguson et al. ('856) and Ferguson ('403) are directed toward heat shrinkability and puncture resistance, it would have been obvious to one of ordinary skill in the art to have used the teachings of Ferguson ('856) in the invention of Ferguson ('403) to obtain a patch bag with improved oxygen barrier and shrinkage properties.

12. Claims 9, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson ('403) in view of Ferguson et al. ('856) as applied to claims 1, 3-8, 10-11, 13-25 above, and further in view of Wilhoit (US Patent 5,283,128).

Wilhoit has a biaxially heat-shrinkable food packaging film comprises a three component blend wherein the major constituents are a mixture of VLDPE and LLDPE, EVA, and an ethylene alpha-olefin plastomer copolymer of a density below about 0.90 g/cc.(abstract). The amount of ethylene alpha-olefin plastomer copolymer (Tafmer) (homogeneous) is between about 10 and 20 weight percent of the total weight of the three component blend (column 3, lines 35-55), and is taught to provide elastomeric and crystalline properties with densities in the same range as VLDPE (column 4, lines 40-60 and column 5, lines 55-68). Wilhoit teaches that the blend provides the most desired properties of the resin components in a single film (column 2,

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lines 60-68), and that the film may be monolayer (column 3, lines 25-35). Wilhoit is directed towards heat shrinkability and puncture resistance (column 4, lines 10-15).

Because Wilhoit teaches that the addition of the plastomer to the blend of VLDPE/LLDP provides elastomeric properties, and both Wilhoit and Ferguson ('403) are directed towards heat shrinkability and puncture resistance, it would have been obvious to one of ordinary skill in the art to have used the blend taught by Wilhoit in the invention of Ferguson ('403) in order to obtain a patchbag with the desired elastomeric properties.

Response to Arguments


13. Applicant's arguments with respect to claims 1, 3-25 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

8H
05/30/02


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

5/31/02